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Access DB# 76604

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Dwayne C Jones Examiner #: 71299 Date: 26 SEP 02
Art Unit: 1614 Phone Number 30 8-4139 Serial Number: 09/781,491
Mail Box and Bldg/Room Location: 2007, CM1 Results Format Preferred (circle): PAPER DISK E-MAIL
2007, CM1
If more than one search is submitted, please prioritize searches in order of need. 1 of 1

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Method for Normalizing Blood Pressure w/(-)-Hydroxycitrate a.

Inventors (please provide full names): CLOUARE, DALLAS L.

Earliest Priority Filing Date: 13 FEB 2001

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search claims 2, 3 and 6

Point of Contact:
Barb O'Bryen
Technical Information Specialist
STIC CM1 6A05 308-4291

****

STAFF USE ONLY

Searcher: BOB
Searcher Phone #:
Searcher Location:
Date Searcher Picked Up:
Date Completed: 10-8-02
Searcher Prep & Review Time: 30
Clerical Prep Time:
Online Time: 41

Type of Search

NA Sequence (#)
AA Sequence (#)
Structure (#)
Bibliographic 5
Litigation
Fulltext
Patent Family
Other

Vendors and cost where applicable

STN 230
Dialog
Questel/Orbit
Dr.Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

PTO-1590 (1-2000)

```
=> fil reg; d stat que l4
FILE 'REGISTRY' ENTERED AT 12:40:15 ON 02 OCT 2002
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    1 OCT 2002  HIGHEST RN 457857-22-6
DICTIONARY FILE UPDATES:   1 OCT 2002  HIGHEST RN 457857-22-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

L2                  STR
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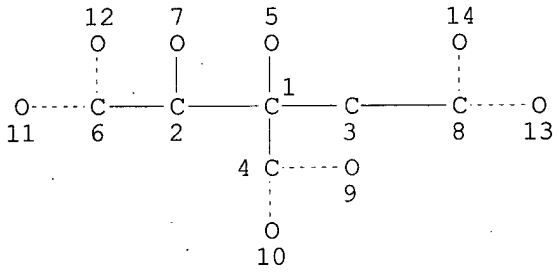

family search done on structure of (−) hydroxy citric acid to pick up salts, stereoisomers, isotopically labelled forms & multicomponent substances

```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  14

STEREO ATTRIBUTES: NONE
L4            34 SEA FILE=REGISTRY FAM FUL L2

100.0% PROCESSED    272 ITERATIONS                    34 ANSWERS
SEARCH TIME: 00.00.02


=> fil capl; d que nos l26; d que nos l31; d que nos l34

FILE 'CAPLUS' ENTERED AT 12:40:16 ON 02 OCT 2002
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FILE COVERS 1907 - 2 Oct 2002 VOL 137 ISS 14
FILE LAST UPDATED: 1 Oct 2002 (20021001/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

```
L2              STR
L4           34 SEA FILE=REGISTRY FAM FUL L2
L6          177 SEA FILE=CAPLUS ABB=ON  L4
L8        80941 SEA FILE=CAPLUS ABB=ON  ?HYPERTENSI?
L10       31765 SEA FILE=CAPLUS ABB=ON  GLUCOCORTICOID# OR GLUCOCORTICOSTEROID#
                 OR GLYCOCORTICOID# OR CORTICOSTEROID#(L)GLUCO
L17       27234 SEA FILE=CAPLUS ABB=ON  BLOOD PRESSURE/CT
L26           4 SEA FILE=CAPLUS ABB=ON  L6 AND (L8 OR L10 OR L17)



L2              STR
L4           34 SEA FILE=REGISTRY FAM FUL L2
L5            1 SEA FILE=REGISTRY ABB=ON  INSULIN/CN
L6          177 SEA FILE=CAPLUS ABB=ON  L4
L11       76446 SEA FILE=CAPLUS ABB=ON  L5
L12      144221 SEA FILE=CAPLUS ABB=ON  INSULIN
L30       30970 SEA FILE=CAPLUS ABB=ON  (L11 OR L12)(L)(RELEAS? OR SECRET? OR
                LOWER? OR DECREAS? OR INHIBIT? OR REDUC? OR PROD? OR LEVEL#)/OB
                I
L31           2 SEA FILE=CAPLUS ABB=ON  L6 AND L30



L2              STR
L4           34 SEA FILE=REGISTRY FAM FUL L2
L5            1 SEA FILE=REGISTRY ABB=ON  INSULIN/CN
L6          177 SEA FILE=CAPLUS ABB=ON  L4
L11       76446 SEA FILE=CAPLUS ABB=ON  L5
L12      144221 SEA FILE=CAPLUS ABB=ON  INSULIN
L33       10988 SEA FILE=CAPLUS ABB=ON  L11(L)POTENTIAT? OR L12(W)RESISTAN?
L34           3 SEA FILE=CAPLUS ABB=ON  L33 AND L6


=> s l26 or l31 or l34

L73           9 L26 OR L31 OR L34

=> fil uspatf; d que nos 144

FILE 'USPATFULL' ENTERED AT 12:40:18 ON 02 OCT 2002
CA INDEXING COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)
```

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 1 Oct 2002 (20021001/PD)
FILE LAST UPDATED: 1 Oct 2002 (20021001/ED)
HIGHEST GRANTED PATENT NUMBER: US6460183
HIGHEST APPLICATION PUBLICATION NUMBER: US2002138890
CA INDEXING IS CURRENT THROUGH 1 Oct 2002 (20021001/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 1 Oct 2002 (20021001/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2002
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2002

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate substance identification.

L2 STR
L4 34 SEA FILE=REGISTRY FAM FUL L2
L35 27 SEA FILE=USPATFULL ABB=ON L4
L38 780 SEA FILE=USPATFULL ABB=ON (GLUCOCORTICOID# OR GLUCOCORTICOSTEROID# OR GLYCOCORTICOID# OR CORTICOSTEROID#(L)GLUCO)/TI,IT,AB,CLM
L39 8402 SEA FILE=USPATFULL ABB=ON (ANTIHYPERTENS? OR HYPERTENS?)/TI,IT,AB,CLM
L40 3647 SEA FILE=USPATFULL ABB=ON (BLOOD PRESSURE)/TI,IT,AB,CLM
L41 5353 SEA FILE=USPATFULL ABB=ON INSULIN/TI,IT,AB,CLM
L42 1686 SEA FILE=USPATFULL ABB=ON L41(5A)(RELEAS? OR SECRET? OR LOWER? OR DECREAS? OR INHIBIT? OR REDUC? OR PROD? OR LEVEL# OR RESISTAN? OR POTENTIAT?)/IT,TI,AB,CLM
L44 6 SEA FILE=USPATFULL ABB=ON L35 AND ((L38 OR L39 OR L40) OR L42)

=> fil medl; d que nos 151; d que nos 153; d que nos 168

FILE 'MEDLINE' ENTERED AT 12:40:19 ON 02 OCT 2002

FILE LAST UPDATED: 1 OCT 2002 (20021001/UP). FILE COVERS 1958 TO DATE.

On June 9, 2002, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2002 vocabulary. Enter HELP THESAURUS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE

SUBSTANCE IDENTIFICATION.

```
L2              STR
L4           34 SEA FILE=REGISTRY FAM FUL L2
L45          70 SEA FILE=MEDLINE ABB=ON  L4
L46      154117 SEA FILE=MEDLINE ABB=ON  HYPERTENSION+NT/CT
L48        4214 SEA FILE=MEDLINE ABB=ON  HYPERINSULINEMIA/CT OR HYPERINSULINISM
                /CT
L49      138702 SEA FILE=MEDLINE ABB=ON  GLUCOCORTICOIDS+ALL/CT
L51          2 SEA FILE=MEDLINE ABB=ON  L45 AND (L46 OR L48 OR L49)


L2              STR
L4           34 SEA FILE=REGISTRY FAM FUL L2
L45          70 SEA FILE=MEDLINE ABB=ON  L4
L47       98218 SEA FILE=MEDLINE ABB=ON  INSULIN/CT
L53          4 SEA FILE=MEDLINE ABB=ON  L47(L)(SE OR BL)/CT AND L45
```

Subheading SE = secretion
BL = blood

```
L2              STR
L4           34 SEA FILE=REGISTRY FAM FUL L2
L45          70 SEA FILE=MEDLINE ABB=ON  L4
L66       25566 SEA FILE=MEDLINE ABB=ON  ANTIHYPERTENSIVE AGENTS/CT
L67      166529 SEA FILE=MEDLINE ABB=ON  BLOOD PRESSURE+NT/CT
L68          0 SEA FILE=MEDLINE ABB=ON  (L66 OR L67) AND L45


=> s l51 or l53

L74          6 L51 OR L53

=> fil embase; d que nos l72

FILE 'EMBASE' ENTERED AT 12:40:21 ON 02 OCT 2002
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 FILE COVERS 1974 TO 26 Sep 2002 (20020926/ED)

 EMBASE has been reloaded. Enter HELP RLOAD for details.

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 substance identification.


L2              STR
L4           34 SEA FILE=REGISTRY FAM FUL L2
L54         114 SEA FILE=EMBASE ABB=ON  L4
L55      160157 SEA FILE=EMBASE ABB=ON  HYPERTENSION+NT/CT
L56      216748 SEA FILE=EMBASE ABB=ON  GLUCOCORTICOID+NT/CT
L57       10484 SEA FILE=EMBASE ABB=ON  INSULIN BLOOD LEVEL/CT
L69       17887 SEA FILE=EMBASE ABB=ON  ANTIHYPERTENSIVE AGENT/CT
L70        3163 SEA FILE=EMBASE ABB=ON  ANTIHYPERTENSIVE ACTIVITY/CT
L71      132735 SEA FILE=EMBASE ABB=ON  BLOOD PRESSURE+NT/CT
L72           5 SEA FILE=EMBASE ABB=ON  L54 AND ((L55 OR L56 OR L57) OR (L69
                OR L70 OR L71))


=> fil biosis; d que nos l65

FILE 'BIOSIS' ENTERED AT 12:40:22 ON 02 OCT 2002
```

FILE COVERS 1969 TO DATE.
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 25 September 2002 (20020925/ED)

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L2              STR
L4           34 SEA FILE=REGISTRY FAM FUL L2
L60          27 SEA FILE=BIOSIS ABB=ON  L4
L61      197253 SEA FILE=BIOSIS ABB=ON  ?HYPERTENSI?
L62      119274 SEA FILE=BIOSIS ABB=ON  BLOOD PRESSURE
L63       33760 SEA FILE=BIOSIS ABB=ON  (GLUCOCORTICOID# OR GLUCOCORTICOSTEROID
                # OR GLYCOCORTICOID# OR CORTICOSTEROID#(L)GLUCO)
L64      196959 SEA FILE=BIOSIS ABB=ON  INSULIN
L65           2 SEA FILE=BIOSIS ABB=ON  L60 AND (L61 OR L62 OR L63 OR L64)
```

```
=> dup rem l74,l73,l65,l72,l44
FILE 'MEDLINE' ENTERED AT 12:41:31 ON 02 OCT 2002

FILE 'CAPLUS' ENTERED AT 12:41:31 ON 02 OCT 2002
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FILE 'USPATFULL' ENTERED AT 12:41:31 ON 02 OCT 2002
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PROCESSING COMPLETED FOR L74
PROCESSING COMPLETED FOR L73
PROCESSING COMPLETED FOR L65
PROCESSING COMPLETED FOR L72
PROCESSING COMPLETED FOR L44
L75          22 DUP REM L74 L73 L65 L72 L44 (6 DUPLICATES REMOVED)
                ANSWERS '1-6' FROM FILE MEDLINE
                ANSWERS '7-14' FROM FILE CAPLUS
                ANSWERS '15-16' FROM FILE BIOSIS
                ANSWERS '17-20' FROM FILE EMBASE
                ANSWERS '21-22' FROM FILE USPATFULL

=> d ibib abs hitstr 7-14; d ibib abs hitstr 21-22; d iall 1-6; d iall 15-20

L75  ANSWER 7 OF 22  CAPLUS  COPYRIGHT 2002 ACS        DUPLICATE 1
ACCESSION NUMBER:         2002:655096  CAPLUS
DOCUMENT NUMBER:          137:179927
TITLE:                    (-)-Hydroxycitric acid for the prevention of
                          osteoporosis
INVENTOR(S):              Clouatre, Dallas L.; Dunn, James M.
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S., 8 pp.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
```

PATENT INFORMATION:

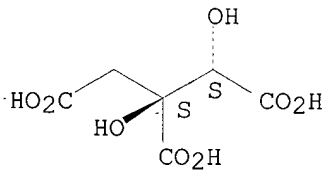
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6441041	B1	20020827	US 2001-886499	20010620

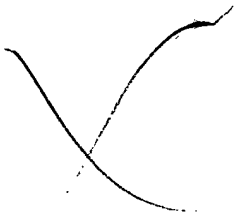
AB (-)-Hydroxycitrate (HCA) supplementation constitutes a means of reducing the loss in bone mineral content such as that usually found in osteoporosis and the related loss in bone quality (protection against the corticoid-induced loss in non-mineral bone components). Similarly, HCA supplementation constitutes a means of reducing stress-induced bone loss and of reducing other forms of bone loss induced by **glucocorticoid** -related mechanisms. The discovery that HCA has bone loss-moderating effects allows for the creation of novel and more efficacious approaches to preventing osteoporosis and for maintaining normal bone metabolic functioning even in the face of diet and exercise habits which are less than ideal and in the face of chronic stress. Furthermore, the discovery makes possible the development of adjuvant modalities which can be used to improve the results realized through the employment of conventional anti-osteoporosis/bone protective remedies. Controlled-release can be used to provide a sustained and modulated amt. of the active to the body as desired and therefore to regulate the use of the compd.

IT **27750-10-3**, (-)-Hydroxycitric acid **27750-10-3D**, (-)-Hydroxycitric acid, esters, amides, and salts **52729-47-2**, Trisodium (-)-hydroxycitrate **64913-19-5 132436-67-0 185196-38-7 213385-58-1 449158-84-3**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((-)-hydroxycitric acid for prevention of osteoporosis)

RN 27750-10-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

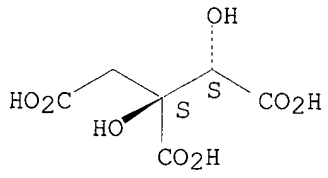
Absolute stereochemistry. Rotation (-).





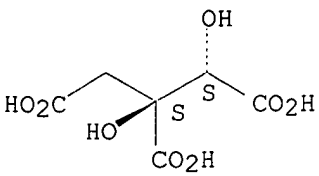
RN 27750-10-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 52729-47-2 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, trisodium salt (9CI) (CA INDEX NAME)

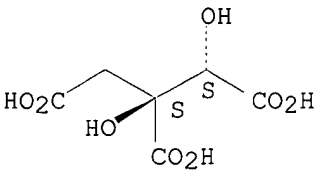
Absolute stereochemistry. Rotation (-).



●3 Na

RN 64913-19-5 CAPLUS
CN Pentaric acid, 3-C-carboxy-2-deoxy-, sodium salt (9CI) (CA INDEX NAME)

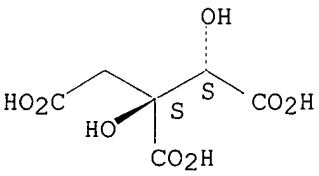
Absolute stereochemistry. Rotation (-).



●x Na

RN 132436-67-0 CAPLUS
CN D-threo-Pentaric acid, 3-C-carboxy-2-deoxy-, magnesium salt (9CI) (CA INDEX NAME)

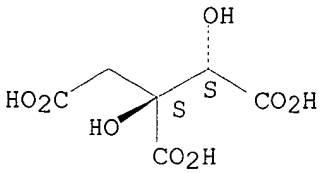
Absolute stereochemistry. Rotation (-).



●x Mg

RN 185196-38-7 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, potassium salt (9CI) (CA INDEX NAME)

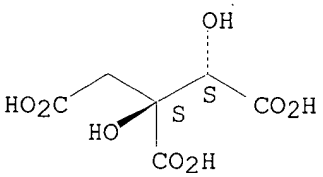
Absolute stereochemistry. Rotation (-).



●x K

RN 213385-58-1 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, calcium salt (9CI) (CA INDEX NAME)

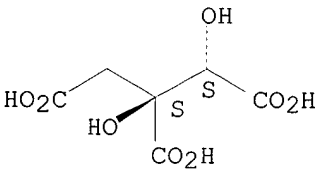
Absolute stereochemistry. Rotation (-).



●x Ca

RN 449158-84-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, calcium potassium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x Ca

●x K

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2
ACCESSION NUMBER: 2002:425329 CAPLUS
DOCUMENT NUMBER: 136:406889
TITLE: Compositions and methods for regulating metabolism and balancing body weight
INVENTOR(S): Yegorova, Inna; Jiang, David

Searched by Barb O'Bryen, STIC 308-4291

PATENT ASSIGNEE(S): Braswell, A. Glenn, USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

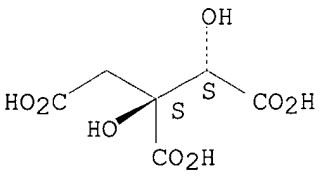
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6399089	B1	20020604	US 2000-571327	20000515

AB Compns. and methods for balancing body wt. by inhibiting re-uptake of serotonin, regulating metab., potentiating insulin, and inhibiting lipogenesis, in a mammal. The compns. comprise chromium, fat-free cocoa powder, Hypericum perforatum ext., Garcinia cambogia ext., Ginkgo biloba ext., Panax ginseng ext., and quercetin. For example, compn. contg. 100 mu.g chromium, 125 mg fat-free cocoa powder, 10 mg H. perforatum ext., 125 mg G. cambogia ext., 60 mg G. biloba ext., 40 mg P. ginseng ext., and 25 mg quercetin was prepd. in tablet form. The recommended dosage for an av. wt. adult human (70-kg) is three tablets per day. In a clin. study was conducted using prepd. tablets in men having a body mass index of > 30. An increase in phys. activity and insulin sensitivity, and a decrease in dietary intake and body mass index are obsd. in the treated subjects upon completion of the study, but not in the control subjects.

IT **27750-10-3**, Hydroxycitric acid
RL: NPO (Natural product occurrence); BIOL (Biological study); OCCU (Occurrence)
(of Garcinia cambogia ext.; oral compns. contg. chromium, fat-free cocoa powder, plant exts., and quercetin for regulating metab. and balancing body wt.)

RN 27750-10-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT **9004-10-8**, Insulin, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**potentiation** of; oral compns. contg. chromium, fat-free cocoa powder, plant exts., and quercetin for regulating metab. and balancing body wt.)

RN 9004-10-8 CAPLUS
CN Insulin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 3
ACCESSION NUMBER: 2001:851796 CAPLUS
DOCUMENT NUMBER: 135:366751
TITLE: Methods and pharmaceutical preparations for normalizing blood pressure with (-)-hydroxycitric acid
INVENTOR(S): Clouatre, Dallas L.; Dunn, James M.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 6 pp.

Searched by Barb O'Bryen, STIC 308-4291

CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001044469	A1	20011122	US 2001-781491	20010213

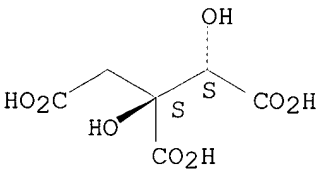
PRIORITY APPLN. INFO.: US 2000-181285P P 20000209

AB A method whereby the blood pressure metab. in an individual showing evidence of dysregulation is improved when that person receives an appropriate oral administration of (-)-hydroxycitric acid (I). The potassium salt of I is a preferred form of the compd., followed by the sodium salt, then by the amide and other derivs. of the acid. The regulation of blood pressure levels over any given period of time may be improved with a controlled release form of I. Controlled release can be used to provide a sustained and modulated amt. of the active to the body as desired and therefore regulate the use of the compd. as a hypotensive agent. Oral administration of 3-4 g of potassium salt of I per day in two divided doses in extremely obese patients normalized the blood pressure along with decrease of blood glucose level.

IT **27750-10-3**, (-)-Hydroxycitric acid **27750-10-3D**, (-)-Hydroxycitric acid, alk. earth metal salts **64913-19-5** **132436-67-0 185196-38-7 213385-58-1**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(methods and pharmaceutical prepns. for normalizing blood pressure with hydroxycitric acid salts)

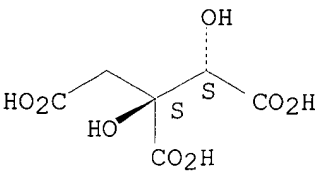
RN 27750-10-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



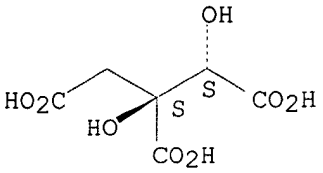
RN 27750-10-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 64913-19-5 CAPLUS
CN Pentaric acid, 3-C-carboxy-2-deoxy-, sodium salt (9CI) (CA INDEX NAME)

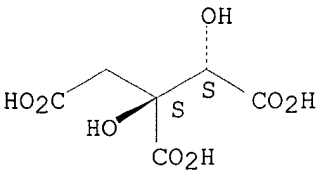
Absolute stereochemistry. Rotation (-).



●x Na

RN 132436-67-0 CAPLUS
CN D-threo-Pentaric acid, 3-C-carboxy-2-deoxy-, magnesium salt (9CI) (CA INDEX NAME)

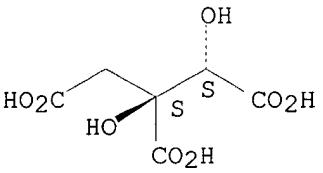
Absolute stereochemistry. Rotation (-).



●x Mg

RN 185196-38-7 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, potassium salt (9CI) (CA INDEX NAME)

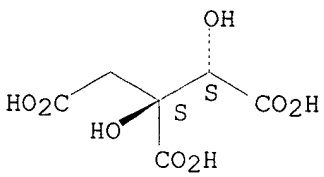
Absolute stereochemistry. Rotation (-).



●x K

RN 213385-58-1 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, calcium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x Ca

L75 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 4
ACCESSION NUMBER: 2001:224396 CAPLUS
DOCUMENT NUMBER: 134:256874
TITLE: Methods and pharmaceutical preparations for improving glucose metabolism with (-)-hydroxycitric acid
INVENTOR(S): Clouatre, Dallas L.; Dunn, James M.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6207714	B1	20010327	US 2000-661588	20000914

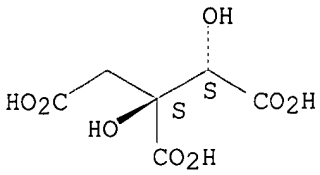
PRIORITY APPLN. INFO.: US 1999-153840P P 19990914

AB Disclosed is a method whereby the glucose metab. in an individual showing evidence of dysregulation, as is found in **insulin resistance**, reactive hyperglycemia and/or elevated blood sugar levels and/or diabetes, is improved when that person receives an appropriate oral administration of (-)-hydroxycitric acid. The potassium salt of (-)-hydroxycitric acid is the preferred form of the compd., followed by the sodium salt. The regulation of glucose levels over any given period of time may be improved with a controlled release form of (-)-hydroxycitric acid. Controlled release can be used to provide a sustained and modulated amt. of the active to the body as desired and therefore regulate the use of the compd. as a hypoglycemic agent.

IT **185196-38-7**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(improving glucose metab. with (-)-hydroxycitric acid and its salts)

RN 185196-38-7 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, potassium salt (9CI) (CA INDEX NAME)

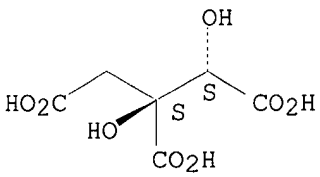
Absolute stereochemistry. Rotation (-).



●x K

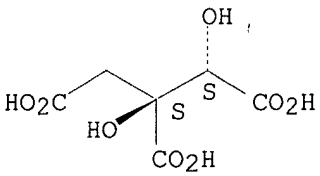
IT **27750-10-3**, (-)-Hydroxycitric acid **64913-19-5**
132436-67-0 213385-58-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(improving glucose metab. with (-)-hydroxycitric acid and its salts)
RN 27750-10-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 64913-19-5 CAPLUS
CN Pentaric acid, 3-C-carboxy-2-deoxy-, sodium salt (9CI) (CA INDEX NAME)

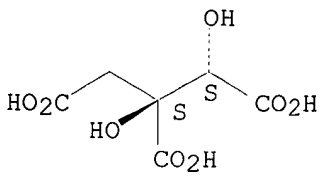
Absolute stereochemistry. Rotation (-).



●x Na

RN 132436-67-0 CAPLUS
CN D-threo-Pentaric acid, 3-C-carboxy-2-deoxy-, magnesium salt (9CI) (CA INDEX NAME)

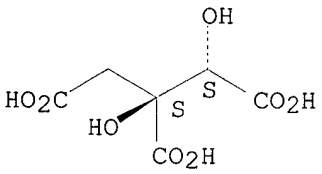
Absolute stereochemistry. Rotation (-).



●x Mg

RN 213385-58-1 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy-, calcium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x Ca

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

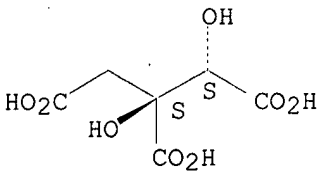
L75 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:336612 CAPLUS
DOCUMENT NUMBER: 133:119495
TITLE: Toward a wholly nutritional therapy for type 2 diabetes
AUTHOR(S): McCarty, M. F.
CORPORATE SOURCE: Helicon Foundation, San Diego, CA, USA
SOURCE: Medical Hypotheses (2000), 54(3), 483-487
CODEN: MEHYDY; ISSN: 0306-9877
PUBLISHER: Churchill Livingstone
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 84 refs. is given. It may now be feasible to target specific supplemental nutrients to each of the key dysfunctions which conspire to maintain hyperglycemia in type 2 diabetes: bioactive chromium for skeletal muscle **insulin resistance**, conjugated linoleic acid for adipocyte **insulin resistance**, high-dose biotin for excessive hepatic glucose output, and coenzyme Q10 for beta cell failure. Nutritional strategies which disinhibit hepatic fatty acid oxidn. (involving hydroxycitrate, carnitine, pyruvate, and other adjuvants) may likewise prove beneficial - in the short term, by decreasing serum free fatty acids and, in the longer term, by promoting regression of visceral obesity. The nutrients and food factors recommended here appear to be safe and well tolerated, and thus may have particular utility for diabetes prevention.

IT **27750-10-3**, Hydroxycitric acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(toward a wholly nutritional therapy for type 2 diabetes)

RN 27750-10-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 84 THERE ARE 84 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:268507 CAPLUS
DOCUMENT NUMBER: 128:278299
TITLE: Magnesium (-)-hydroxycitrate, method of preparation, applications, and compositions, in particular pharmaceutical, containing same
INVENTOR(S): Shrivastava, Ravi; Lambropoulos, Patrick
PATENT ASSIGNEE(S): Shrivastava, Ravi, Fr.; Lambropoulos, Patrick
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9817671	A1	19980430	WO 1997-FR1860	19971017
W: AU, CA, JP, KR, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2754820	A1	19980424	FR 1996-13094	19961022
FR 2754820	B1	19991022		
AU 9748717	A1	19980515	AU 1997-48717	19971017
AU 717533	B2	20000330		
EP 937085	A1	19990825	EP 1997-911285	19971017
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001503744	T2	20010321	JP 1998-519029	19971017
KR 2000052687	A	20000825	KR 1999-703474	19990421
US 6221901	B1	20010424	US 1999-284864	19990422

PRIORITY APPLN. INFO.: FR 1996-13094 A 19961022
WO 1997-FR1860 W 19971017

AB The invention concerns magnesium (-)-hydroxycitrate, its method of prepn., its applications in dietetics and in therapeutics particularly in the cardiovascular field, and pharmaceutical compns. contg. it. Thus, magnesium (-)-hydroxycitrate is prepd. from reaction of an ext. of Garcinia cambogia with an aliph. alc. (e.g., EtOH) to obtain a ppt. which is treated with a tannin fixative (e.g., poly(vinylpyrrolidone)), filtered, and the remaining soln. agitated with an anion exchange resin, the supernatant is eliminated, and the product is eluted and dried. Magnesium (-)-hydroxycitrate is useful in the therapeutic treatment of cardiovascular diseases. The antioxidant and antihypertensive activities of the (-)-hydroxycitrate in rat, its antihypercholesterolemic and antiatherosclerotic activities in rabbit, and the toxicity in rat are reported. An assocn. of magnesium (-)-hydroxycitrate with Mg, Cu, Co, Zn, Ni, Se, Si, Mn, Li, or Fe, ionized or not, and at least one vitamin is claimed. Pharmaceutical formulations contg. magnesium (-)-hydroxycitrate

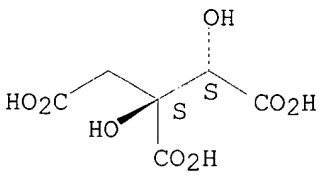
are claimed (6 examples). Magnesium (-)-hydroxycitrate or an assocd. compd. described above are applicable to dietetic/nutritional or cosmetic products.

IT **132436-67-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of magnesium (-)-hydroxycitrate for treatment of cardiovascular diseases)

RN 132436-67-0 CAPLUS

CN D-threo-Pentaric acid, 3-C-carboxy-2-deoxy-, magnesium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x Mg

L75 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1998:784225 CAPLUS

DOCUMENT NUMBER: 130:177001

TITLE: Utility of metformin as an adjunct to hydroxycitrate/carnitine for reducing body fat in diabetics

AUTHOR(S): McCarty, M. F.

CORPORATE SOURCE: Nutrition 21, San Diego, CA, 92109, USA

SOURCE: Medical Hypotheses (1998), 51(5), 399-403
CODEN: MEHYDY; ISSN: 0306-9877

PUBLISHER: Churchill Livingstone

DOCUMENT TYPE: Journal; General Review

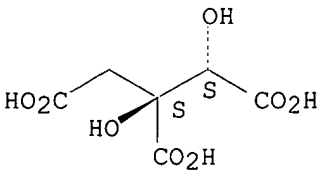
LANGUAGE: English

AB A review with 39 refs. Excessive exposure of tissues to fatty acids is likely to be the chief cause of the various dysfunctions that lead to sustained hyperglycemia in type II diabetes. These dysfunctions are likely to be substantially reversible if body fat and dietary fat can be greatly reduced. Disinhibition of hepatic fatty acid oxidn. with hydroxycitrate (HCA) and carnitine has considerable potential as a new wt.-loss strategy, but in diabetics runs the risk of further enhancing excessive hepatic gluconeogenesis. Since the clin. utility of metformin in diabetes is probably traceable to inhibition of gluconeogenesis, its use as an adjunct to HCA/carnitine treatment of obesity in diabetics deserves evaluation, particularly as metformin therapy itself tends to reduce body wt. A consideration of relevant evidence suggests that metformin therapy will not impede the activation of fatty acid oxidn. by HCA/carnitine, and is likely to potentiate the appetite-suppressant and thermogenic benefits of this strategy. Indeed, since metformin has been reported to lower body wt. and improve cardiovascular risk factors in obese non-diabetics, a broader application of a metformin/HCA/carnitine therapy for obesity can be contemplated.

IT **27750-10-3**, Hydroxycitric acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(utility of metformin as an adjunct to hydroxycitrate/carnitine for reducing body fat in diabetics)
RN 27750-10-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:720056 CAPLUS
DOCUMENT NUMBER: 127:351178
TITLE: Dietary composition containing chitosan, Garcinia cambogia hydroxycitrate, and organic chromium
INVENTOR(S): Littera, Renato
PATENT ASSIGNEE(S): SIRC S.P.A. Natural & Dietetic Foods, Italy
SOURCE: Eur. Pat. Appl., 6 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 803202	A2	19971029	EP 1997-830189	19970424
EP 803202	A3	19980429		

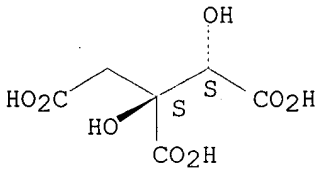
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: IT 1996-RM279 19960426

AB The use of prepns. based on the combination of chitosan with org. chromium and Garcinia cambogia hydroxycitrate as dietary products for the treatment of obesity having hypocholesteremic and sugar absorption reducing activity is disclosed. The proposed combination of chitosan with org. chromium and Garcinia cambogia hydroxycitrate is formulated on the base of the effects that the above three components have on the glucid metab. Such effects tends particularly to decrease the values of cholesterolemia and triglycerides in case they are too high. The integrator of the invention can be administered by mouth in the usual dose unit both as capsules and tablets and is efficacious as diet integrator in the wt. reducing programs aiming at calorie restrictions in obese subjects, in the treatment of **hypertension**, and as hypocholesteremic product.

IT **27750-10-3**, Hydroxycitric acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(dietary compn. contg. chitosan, Garcinia cambogia hydroxycitrate, and org. chromium)
RN 27750-10-3 CAPLUS
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L75 ANSWER 21 OF 22 USPATFULL
ACCESSION NUMBER: 2001:59921 USPATFULL
TITLE: Magnesium (-)hydroxycitrate, method of preparation, applications, and compositions in particular pharmaceutical containing same
INVENTOR(S): Shrivastava, Ravi, 43bis route de Chateaugay, 63118 Cebazat, France
Lambropoulos, Patrick, 35 Traverse Nicolas, 13007 Marseille, France

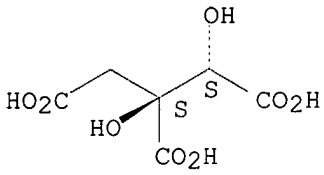
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6221901	B1	20010424	
	WO 9817671		19980430	
APPLICATION INFO.:	US 1999-284864		19990422	(9)
	WO 1997-FR1860		19971017	
			19990422	PCT 371 date
			19990422	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	FR 1996-13094	19961022

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: O'Sullivan, Peter
LEGAL REPRESENTATIVE: Browdy and Neimark
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
LINE COUNT: 508
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Magnesium (-)hydroxycitrate, preparation process, dietary and therapeutic uses particularly in the cardiovascular field, and compositions in particular pharmaceutical containing it.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **132436-67-0P**
(prepn. of magnesium (-)-hydroxycitrate for treatment of cardiovascular diseases)
RN 132436-67-0 USPATFULL
CN D-threo-Pentaric acid, 3-C-carboxy-2-deoxy-, magnesium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



●x Mg

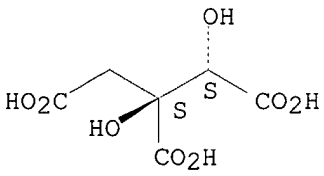
L75 ANSWER 22 OF 22 USPATFULL
ACCESSION NUMBER: 1998:14823 USPATFULL
TITLE: Method of treatment for carbohydrate addiction
INVENTOR(S): Bernstein, Richard K., 1160 Greacen Point Rd., Mamaroneck, NY, United States 10543

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5716976		19980210
APPLICATION INFO.:	US 1996-615616		19960313 (8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Fay, Zohreh
LEGAL REPRESENTATIVE: Kane, Dalsimer, Sullivan, Kurucz, Levy, Eisele and Richard
NUMBER OF CLAIMS: 27
EXEMPLARY CLAIM: 1
LINE COUNT: 713
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method is described for alleviating carbohydrate addiction by administration of anorexients on a schedule that avoids tolerance to the anorexient.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
IT **27750-10-3**, Hydroxycitric acid
(anorexient treatment of carbohydrate addiction)
RN 27750-10-3 USPATFULL
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L75 ANSWER 1 OF 22 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 92144681 MEDLINE
DOCUMENT NUMBER: 92144681 PubMed ID: 1782221
TITLE: Hexose metabolism in pancreatic islets. Effect of (-)-hydroxycitrate upon fatty acid synthesis and insulin release in glucose-stimulated islets.

AUTHOR: Sener A; Malaisse W J
CORPORATE SOURCE: Laboratory of Experimental Medicine, Brussels Free University, Belgium.
SOURCE: BIOCHIMIE, (1991 Oct) 73 (10) 1287-90.
Journal code: 1264604. ISSN: 0300-9084.
PUB. COUNTRY: France
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199203
ENTRY DATE: Entered STN: 19920405
Last Updated on STN: 19920405
Entered Medline: 19920313

ABSTRACT:
Anaplerotic reactions leading to the de novo synthesis of fatty acids, were recently proposed to participate in the coupling of metabolic to secretory events in the process of glucose-stimulated insulin release. In an attempt to validate such a proposal, the effect of (-)-hydroxycitrate upon fatty acid synthesis and insulin release was investigated in glucose-stimulated rat pancreatic islets. The inhibitor of ATP citrate-lyase, when tested in the 1.0-2.0 mM range, failed to affect glucose-stimulated insulin release, but also failed to inhibit the incorporation of 14C-labelled acetyl residues derived from L-[U-14C]leucine into islet lipids. A partial inhibition of fatty acid labelling by 3H2O was only observed in islets incubated for 120 min in the presence of 5.0 mM (-)-hydroxycitrate and absence of CaCl2. These findings suggest that (-)-hydroxycitrate is not, under the present experimental conditions, a useful tool to abolish fatty acid synthesis in intact pancreatic islets.

CONTROLLED TERM: Check Tags: Animal; Female; In Vitro; Support, Non-U.S. Gov't
Citrates: PD, pharmacology
Fatty Acids: BI, biosynthesis
Glucose: PD, pharmacology
*Hexoses: ME, metabolism
Insulin: SE, secretion
Islets of Langerhans: DE, drug effects
*Islets of Langerhans: ME, metabolism
Islets of Langerhans: SE, secretion
Rats
CAS REGISTRY NO.: 11061-68-0 (Insulin); 50-99-7 (Glucose); **6205-14-7 (hydroxycitric acid)**
CHEMICAL NAME: 0 (Citrates); 0 (Fatty Acids); 0 (Hexoses)

structures for Medline, Biosis, & Embase hits printed at end

L75 ANSWER 2 OF 22 MEDLINE
ACCESSION NUMBER: 2001105565 MEDLINE
DOCUMENT NUMBER: 20583412 PubMed ID: 11187927
TITLE: Dietary fat intake, supplements, and weight loss.
AUTHOR: Dyck D J
CORPORATE SOURCE: Department of Human Biology and Nutritional Sciences, University of Guelph, ON.
SOURCE: CANADIAN JOURNAL OF APPLIED PHYSIOLOGY, (2000 Dec) 25 (6) 495-523. Ref: 159
Journal code: 9306274. ISSN: 1066-7814.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200102
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322

Entered Medline: 20010208

ABSTRACT:
Although there remains controversy regarding the role of macronutrient balance in the etiology of obesity, the consumption of high-fat diets appears to be strongly implicated in its development. Evidence that fat oxidation does not adjust rapidly to acute increases in dietary fat, as well as a decreased capacity to oxidize fat in the postprandial state in the obese, suggest that diets high in fat may lead to the accumulation of fat stores. Novel data is also presented suggesting that in rodents, high-fat diets may lead to the development of leptin resistance in skeletal muscle and subsequent accumulations of muscle triacylglycerol. Nevertheless, several current fad diets recommend drastically reduced carbohydrate intake, with a concurrent increase in fat content. Such recommendations are based on the underlying assumption that by reducing circulating insulin levels, lipolysis and lipid oxidation will be enhanced and fat storage reduced. Numerous supplements are purported to increase fat oxidation (carnitine, conjugated linoleic acid), increase metabolic rate (ephedrine, pyruvate), or inhibit hepatic lipogenesis (hydroxycitrate). All of these compounds are currently marketed in supplemental form to increase weight loss, but few have actually been shown to be effective in scientific studies. To date, there is little or no evidence supporting that carnitine or hydroxycitrate supplementation are of any value for weight loss in humans. Supplements such as pyruvate have been shown to be effective at high dosages, but there is little mechanistic information to explain its purported effect or data to indicate its effectiveness at lower dosages. Conjugated linoleic acid has been shown to stimulate fat utilization and decrease body fat content in mice but has not been tested in humans. The effects of ephedrine in conjunction with methylxanthines and aspirin, in humans appears unequivocal but includes various cardiovascular side effects. None of these compounds have been tested for their effectiveness or safety over prolonged periods of time.

CONTROLLED TERM: Check Tags: Animal; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.
Anti-Obesity Agents: AE, adverse effects
Anti-Obesity Agents: TU, therapeutic use
Aspirin: AE, adverse effects
Aspirin: TU, therapeutic use
Carnitine: TU, therapeutic use
Citrates: TU, therapeutic use
*Dietary Fats: AD, administration & dosage
Dietary Fats: AE, adverse effects
*Dietary Supplements
Dietary Supplements: AE, adverse effects
Ephedrine: TU, therapeutic use
Insulin: BL, blood
Leptin: ME, metabolism
Linoleic Acid: TU, therapeutic use
Lipids: ME, metabolism
Lipolysis
Mice
Muscle, Skeletal: ME, metabolism
Obesity: ET, etiology
Oxidation-Reduction
Pyruvates: TU, therapeutic use
Rats
Triglycerides: ME, metabolism
*Weight Loss
Xanthines: AE, adverse effects
Xanthines: TU, therapeutic use

CAS REGISTRY NO.: 11061-68-0 (Insulin); 2197-37-7 (Linoleic Acid); 28109-92-4 (methylxanthine); 299-42-3 (Ephedrine); 50-78-2 (Aspirin); 541-15-1 (Carnitine); **6205-14-7 (hydroxycitric acid)**

CHEMICAL NAME: 0 (Anti-Obesity Agents); 0 (Citrates); 0 (Dietary Fats); 0

(Leptin); 0 (Lipids); 0 (Pyruvates); 0 (Triglycerides); 0 (Xanthines)

L75 ANSWER 3 OF 22 MEDLINE
ACCESSION NUMBER: 97344123 MEDLINE
DOCUMENT NUMBER: 97344123 PubMed ID: 9200650
TITLE: Stimulation of islet protein kinase C translocation by palmitate requires metabolism of the fatty acid.
AUTHOR: Alcazar O; Qiu-yue Z; Gine E; Tamarit-Rodriguez J
CORPORATE SOURCE: Department of Biochemistry, Complutense University Medical School, Madrid, Spain.
SOURCE: DIABETES, (1997 Jul) 46 (7) 1153-8.
Journal code: 0372763. ISSN: 0012-1797.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199707
ENTRY DATE: Entered STN: 19970724
Last Updated on STN: 19970724
Entered Medline: 19970716

ABSTRACT:
The secretory, metabolic, and signaling aspects of glucose/palmitate interaction on beta-cell function have been studied on rat islets. Palmitate potentiated the glucose-induced insulin response of perifused islets at suprathreshold (>3 mmol/l) sugar concentrations. This potentiating effect could be suppressed by 8-bromo-cGMP, which also blocks palmitate metabolism. Palmitate did not modify glucose utilization, but it slightly reduced glucose oxidation and concomitantly increased lactate production. The very low rate of palmitate oxidation (80-fold lower than that of 20 mmol/l glucose) might explain its lack of effect on glycolysis and hence that the glucose/fatty acid cycle is inoperative in islet cells. However, glucose determines the metabolic fate of exogenous palmitate, which is mainly diverted toward lipid synthesis at high sugar concentrations and might then generate lipid messengers for cell signaling. Palmitate did not increase glucose-induced production of inositol-1,4,5-trisphosphate, but it stimulated the translocation of protein kinase C activity from a cytosolic to a particulate fraction at 20 but not at 3 mmol/l glucose. This increased translocation was partially or completely blocked by hydroxycitrate or 8-bromo-cGMP, respectively, which are agents interfering with palmitate metabolism (inhibiting lipid synthesis). The metabolic interaction between glucose and palmitate might generate lipid messengers (diacylglycerol, phosphatidylserine) necessary for the activation of islet protein kinase C, which would in turn result in a potentiation of glucose-induced insulin secretion.

CONTROLLED TERM: Check Tags: Animal; Comparative Study; Male; Support, Non-U.S. Gov't
8-Bromo Cyclic Adenosine Monophosphate: PD, pharmacology
Citrates: PD, pharmacology
Cyclic GMP: AA, analogs & derivatives
Cyclic GMP: PD, pharmacology
Cytosol: EN, enzymology
Cytosol: ME, metabolism
Dose-Response Relationship, Drug
*Glucose: ME, metabolism
Glucose: PD, pharmacology
Insulin: IM, immunology
***Insulin: SE, secretion**
Islets of Langerhans: DE, drug effects
Islets of Langerhans: EN, enzymology
*Islets of Langerhans: PH, physiology
Lactic Acid: BI, biosynthesis
Membrane Proteins: ME, metabolism

Octanoic Acids: ME, metabolism
Oxidation-Reduction
*Palmitates: ME, metabolism
Palmitates: PD, pharmacology
Protein Kinase C: DE, drug effects
*Protein Kinase C: ME, metabolism
Rats
Rats, Wistar
Rotenone: PD, pharmacology
Time Factors

CAS REGISTRY NO.: 11061-68-0 (Insulin); 124-07-2 (caprylic acid); 23583-48-4 (8-Bromo Cyclic Adenosine Monophosphate); 31356-94-2 (8-bromocyclic GMP); 50-21-5 (Lactic Acid); 50-99-7 (Glucose); **6205-14-7 (hydroxycitric acid)**; 7665-99-8 (Cyclic GMP); 83-79-4 (Rotenone)

CHEMICAL NAME: 0 (Citrates); 0 (Membrane Proteins); 0 (Octanoic Acids); 0 (Palmitates); EC 2.7.1.- (Protein Kinase C)

L75 ANSWER 4 OF 22 MEDLINE
ACCESSION NUMBER: 96130666 MEDLINE
DOCUMENT NUMBER: 96130666 PubMed ID: 8569547
TITLE: Inhibition of citrate lyase may aid aerobic endurance.
AUTHOR: McCarty M F
SOURCE: MEDICAL HYPOTHESES, (1995 Sep) 45 (3) 247-54. Ref: 77
Journal code: 7505668. ISSN: 0306-9877.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals; Space Life Sciences
ENTRY MONTH: 199603
ENTRY DATE: Entered STN: 19960315
Last Updated on STN: 19980206
Entered Medline: 19960305

ABSTRACT:
Owing to a substantial increase in glucose uptake by working muscle, glucose homeostasis during sustained aerobic exercise requires a severalfold increase in hepatic glucose output. As exercise continues and liver glycogen declines, an increasing proportion of this elevated glucose output must be provided by gluconeogenesis. Increased gluconeogenic efficiency in trained individuals is a key adaptation promoting increased endurance, since failure of hepatic glucose output to keep pace with muscle uptake rapidly leads to hypoglycaemia and exhaustion. Pre-administration of (-)-hydroxycitrate, a potent inhibitor of citrate lyase found in fruits of the genus Garcinia, may aid endurance during post-absorptive aerobic exercise by promoting gluconeogenesis. Carnitine and bioactive chromium may potentiate this benefit. The utility of this technique may be greatest in exercise regimens designed to promote weight loss.

CONTROLLED TERM: Check Tags: Animal; Human
Aerobiosis
Carnitine: PD, pharmacology
Chromium Compounds: PD, pharmacology
*Citrates: PD, pharmacology
*Exertion: PH, physiology
*Gluconeogenesis: DE, drug effects
*Glucose: ME, metabolism
*Glycogen: ME, metabolism
Glycolysis
Hormones: PH, physiology
Lipids: ME, metabolism
Liver: ME, metabolism
*Multienzyme Complexes: AI, antagonists & inhibitors

Multienzyme Complexes: PH, physiology
Muscle, Skeletal: ME, metabolism
*Oxo-Acid-Lyases: AI, antagonists & inhibitors
Oxo-Acid-Lyases: PH, physiology
*Physical Endurance: DE, drug effects
Rats
Weight Loss: DE, drug effects

CAS REGISTRY NO.: 50-99-7 (Glucose); 541-15-1 (Carnitine); **6205-14-7 (hydroxycitric acid)**; 9005-79-2 (Glycogen)

CHEMICAL NAME: 0 (Chromium Compounds); 0 (Citrates); 0 (Hormones); 0 (Lipids); 0 (Multienzyme Complexes); EC 4.1.3. (Oxo-Acid-Lyases); EC 4.1.3.6 (citrate (pro-3S)-lyase)

L75 ANSWER 5 OF 22 MEDLINE

ACCESSION NUMBER: 94283727 MEDLINE

DOCUMENT NUMBER: 94283727 PubMed ID: 8013751

TITLE: More direct evidence for a malonyl-CoA-carnitine palmitoyltransferase I interaction as a key event in pancreatic beta-cell signaling.

AUTHOR: Chen S; Ogawa A; Ohneda M; Unger R H; Foster D W; McGarry J D

CORPORATE SOURCE: Department of Internal Medicine, Gifford Laboratories, University of Texas Southwestern Medical Center at Dallas 75235-8858.

CONTRACT NUMBER: DK-18575 (NIDDK)
DK-42582 (NIDDK)

SOURCE: DIABETES, (1994 Jul) 43 (7) 878-83.
Journal code: 0372763. ISSN: 0012-1797.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 199407

ENTRY DATE: Entered STN: 19940810
Last Updated on STN: 19980206
Entered Medline: 19940725

ABSTRACT:
We sought to explore the emerging concept that malonyl-CoA generation, with concomitant suppression of mitochondrial carnitine palmitoyltransferase I (CPT I), represents an important component of glucose-stimulated insulin secretion (GSIS) by the pancreatic beta-cell (Prentki M, Vischer S, Glennon MC, Regazzi R, Deeney JT, Corkey BE: Malonyl-CoA and long-chain acyl-CoA esters as metabolic coupling factors in nutrient-induced insulin secretion. J Biol Chem 267:5802-5810, 1992). Accordingly, pancreases from fed rats were perfused with basal (3 mM) followed by high (20 mM) glucose in the absence or presence of 2 mM hydroxycitrate (HC), an inhibitor of ATP-citrate (CIT) lyase (the penultimate step in the glucose-->malonyl-CoA conversion). HC profoundly inhibited GSIS, whereas CIT had no effect. Inclusion of 0.5 mM palmitate in the perfusate significantly enhanced GSIS and completely offset the negative effect of HC. In isolated islets, HC stimulated [1-14C]palmitate oxidation in the presence of basal glucose and markedly obtunded the inhibitory effect of high glucose. Directional changes in 14C incorporation into phospholipids were opposite to those of 14CO2 production. At a concentration of 0.2 mM, 2-bromostearate, 2-bromopalmitate and etomoxir (all CPT I inhibitors) potentiated GSIS by the pancreas and inhibited palmitate oxidation in islets. However, at 0.05 mM, etomoxir did not influence insulin secretion but still caused significant suppression of fatty acid oxidation. The results provide more direct evidence for a pivotal role of malonyl-CoA suppression of CPT I, with attendant elevation of the cytosolic long-chain acyl-CoA concentration, in GSIS from the normal pancreatic beta-cell.(ABSTRACT TRUNCATED AT 250 WORDS)

CONTROLLED TERM: Check Tags: Animal; In Vitro; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

ATP Citrate (pro-S)-Lyase: AI, antagonists & inhibitors
Carnitine O-Palmitoyltransferase: AI, antagonists & inhibitors
*Carnitine O-Palmitoyltransferase: ME, metabolism
Citrates: PD, pharmacology
Epoxy Compounds: PD, pharmacology
Glucose: PD, pharmacology
Hypoglycemic Agents: PD, pharmacology
Insulin: SE, secretion
Islets of Langerhans: DE, drug effects
Islets of Langerhans: EN, enzymology
*Islets of Langerhans: PH, physiology
Kinetics
Malonyl Coenzyme A: ME, metabolism
Palmitates: PD, pharmacology
Palmitic Acid
Palmitic Acids: ME, metabolism
Rats
Rats, Sprague-Dawley
*Signal Transduction
Stearic Acids: PD, pharmacology
Time Factors

CAS REGISTRY NO.: 11061-68-0 (Insulin); 142-94-9 (2-bromostearic acid); 18263-25-7 (2-bromopalmitate); 50-99-7 (Glucose); 524-14-1 (Malonyl Coenzyme A); 57-10-3 (Palmitic Acid); **6205-14-7 (hydroxycitric acid)**; 82258-36-4 (etomoxir)

CHEMICAL NAME: 0 (Citrates); 0 (Epoxy Compounds); 0 (Hypoglycemic Agents); 0 (Palmitates); 0 (Palmitic Acids); 0 (Stearic Acids); EC 2.3.1.21 (Carnitine O-Palmitoyltransferase); EC 4.1.3.8 (ATP Citrate (pro-S)-Lyase)

L75 ANSWER 6 OF 22 MEDLINE

ACCESSION NUMBER: 90254190 MEDLINE

DOCUMENT NUMBER: 90254190 PubMed ID: 2160286

TITLE: Glucocorticoid induction of fatty-acid synthase mediates the stimulatory effect of the hormone on choline-phosphate cytidylyltransferase activity in fetal rat lung.

AUTHOR: Xu Z X; Smart D A; Rooney S A

CORPORATE SOURCE: Department of Pediatrics, Yale University School of Medicine, New Haven, CT.

CONTRACT NUMBER: HD-10192 (NICHD)
HL-43320 (NHLBI)

SOURCE: BIOCHIMICA ET BIOPHYSICA ACTA, (1990 May 1) 1044 (1) 70-6. Journal code: 0217513. ISSN: 0006-3002.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199006

ENTRY DATE: Entered STN: 19900720
Last Updated on STN: 19980206
Entered Medline: 19900628

ABSTRACT:
Fetal lung fatty-acid synthase and choline-phosphate cytidylyltransferase activities are increased by glucocorticoids. There is evidence that the hormone increases synthesis of fatty-acid synthase but only increases the catalytic activity of the cytidylyltransferase. Free fatty acids and a number of phospholipids have been reported to stimulate cytidylyltransferase activity in several organs, including the lung. We have addressed the question of whether glucocorticoid induction of fatty-acid synthase mediates the stimulatory effect of the hormone on choline-phosphate cytidylyltransferase activity. Explants of 18-day fetal rat lung were cultured for 48 h with dexamethasone and inhibitors

of de novo fatty acid biosynthesis (agaric acid and hydroxycitric acid) being included in the medium for the final 20 h. Dexamethasone increased the activities of fatty acid synthase and choline-phosphate cytidylyltransferase by 84% and 60%, respectively. Agaric acid and hydroxycitric acid completely abolished the stimulatory effect of the hormone on cytidylyltransferase but not on fatty-acid synthase. The inhibitors had no effect on cytidylyltransferase activity in control cultures. Fetal lung choline-phosphate cytidylyltransferase can be maximally stimulated by inclusion of phosphatidylglycerol in the assay mixture and under this condition, cytidylyltransferase activity in control and dexamethasone-treated cultures in the presence and absence of the inhibitors were all increased to the same level. Therefore, the inhibitors did not diminish the capacity of cytidylyltransferase to be fully activated. We suggest that the glucocorticoid induction of fatty-acid synthase in fetal lung results in increased synthesis of fatty acids which in turn, either as free acids or after incorporation into phospholipids, activate choline-phosphate cytidylyltransferase.

CONTROLLED TERM: Check Tags: Animal; Female; Support, U.S. Gov't, P.H.S.
Cells, Cultured
Choline-Phosphate Cytidylyltransferase
Citrates: PD, pharmacology
DNA: BI, biosynthesis
Dexamethasone: PD, pharmacology
Enzyme Induction: DE, drug effects
*Fatty Acid Synthetase Complex: BI, biosynthesis
Fatty Acid Synthetase Complex: GE, genetics
Fetus
***Glucocorticoids: PD, pharmacology**
Kinetics
Lung: DE, drug effects
*Lung: EN, enzymology
Nucleotidyltransferases: GE, genetics
*Nucleotidyltransferases: ME, metabolism
Phosphatidylglycerols: PD, pharmacology
Pregnancy
Rats
Rats, Inbred Strains

CAS REGISTRY NO.: 50-02-2 (Dexamethasone); **6205-14-7 (hydroxycitric acid)**; 666-99-9 (agaric acid); 9007-49-2 (DNA)

CHEMICAL NAME: 0 (Citrates); 0 (Glucocorticoids); 0 (Phosphatidylglycerols); EC 2.7.7 (Nucleotidyltransferases); EC 2.7.7.15 (Choline-Phosphate Cytidylyltransferase); EC 6.- (Fatty Acid Synthetase Complex)

L75 ANSWER 15 OF 22 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 5

ACCESSION NUMBER: 1999:476882 BIOSIS

DOCUMENT NUMBER: PREV199900476882

TITLE: (-)-Hydroxycitric acid does not affect energy expenditure and substrate oxidation in adult males in a post-absorptive state.

AUTHOR(S): Kriketos, A. D.; Thompson, H. R.; Greene, H.; Hill, J. O. (1)

CORPORATE SOURCE: (1) Center for Human Nutrition, University of Colorado Health Sciences Center, 4200 East Ninth Avenue, Denver, CO, 80262 USA

SOURCE: International Journal of Obesity, (Aug., 1999) Vol. 23, No. 8, pp. 867-873.
ISSN: 0307-0565.

DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English
ABSTRACT:
OBJECTIVE: (-)-Hydroxycitric acid ((-)-HCA) is available as a herbal supplement, and promoted as a weight loss agent. It is hypothesized that (-)-HCA can increase fat oxidation by inhibiting citrate lyase, an enzyme which plays a crucial role in energy metabolism during de novo lipogenesis. The indirect inhibition of the cytosolic pool of citrate by (-)-HCA and the subsequent reduction in acetyl coenzyme A and oxaloacetate alters steps in the citric acid cycle that promote fat oxidation. The objective of this study was to determine the effect of (-)-HCA on marker substrates of altered metabolism, as well as on respiratory quotient (RQ) and energy expenditure (EE) in humans, following an overnight fast and during a bout of exercise. HYPOTHESIS OF STUDY: We hypothesized that supplementation with (-)-HCA would result in an increase in fat oxidation and metabolic rate, reflected by an increase in beta-hydroxybutyrate and EE and/or a decrease in RQ. Furthermore, during moderately intense exercise, we hypothesized that (-)-HCA supplementation would increase the rate of lactate conversion to glucose in the liver, with a subsequent reduction of circulating lactate and an elevation of circulating ketone bodies due to the increased partial oxidation of fatty acids (FA) in mitochondria. Studies have examined the fat regulating action of (-)-HCA on steps of the citric acid cycle in rodents showing reductions in body weight and food intake. No studies have investigated the effects of (-)-HCA supplementation in conjunction with a typical daily dietary composition (that is approx 30 - 35% fat) on metabolic processes which could influence body weight regulation in humans. DESIGN: This was a double blind, placebo controlled, randomized, crossover study involving three days of (-)-HCA (3.0 g/d) or placebo supplementation. The effects of (-)-HCA supplementation on metabolic parameters with or without moderately intense exercise was studied over four laboratory visits. SUBJECTS: Sedentary adult male subjects (n = 10, age: 22 - 38 y, body mass index (BMI) 22.4 -37.6 kg/m2). MEASUREMENTS: Two of the four visits involved no exercise (Protocol A) with and without (-)-HCA treatment, while the remaining two visits included a moderately intense exercise bout (Protocol B; 30 min at 40% maximal aerobic fitness (VO2max) and 15 min at 60% VO2max) with and without (-)-HCA treatment. EE (by indirect calorimetry) and RQ were measured for 150 min following an overnight fast. Blood samples were collected for the determination of glucose, **insulin**, glucagon, lactate, and beta-hydroxybutyrate concentrations. RESULTS: In a fasted state and following 3 d of (-)-HCA treatment, RQ was not significantly lowered during rest (Protocol A) nor during exercise (Protocol B) compared with the placebo treatment. Treatment with (-)-HCA did not affect EE, either during rest or during moderately intense exercise. Furthermore, the blood substrates measured were not significantly different between treatment groups under the fasting conditions of this study. CONCLUSION: These results do not support the hypothesis that (-)-HCA alters the short-term rate of fat oxidation in the fasting state during rest or moderate exercise, with doses likely to be achieved in humans while subjects maintain a typical Western diet (approx 30 - 35% total calories as fat).
CONCEPT CODE: Nutrition - Malnutrition; Obesity *13203
Biochemical Studies - General *10060
Respiratory System - General; Methods *16001
Metabolism - Metabolic Disorders *13020
BIOSYSTEMATIC CODE: Hominidae 86215
INDEX TERMS: Major Concepts
Nutrition
INDEX TERMS: Parts, Structures, & Systems of Organisms
mitochondria
INDEX TERMS: Chemicals & Biochemicals
acetyl coenzyme A [acetyl coA]; beta-hydroxybutyrate; citrate lyase; fatty acids; glucagon; glucose; **insulin**; lactate; levo-hydroxycitric acid: herbal supplement, weight loss agent

INDEX TERMS: Methods & Equipment
indirect calorimetry: analytical method
INDEX TERMS: Miscellaneous Descriptors
aerobic fitness; body mass index; energy expenditure; exercise; fasting; fat oxidation; lipogenesis; respiratory quotient; substrate oxidation
ORGANISM: Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISM: Organism Name
human (Hominidae): adult, male
ORGANISM: Organism Superterms
Animals; Chordates; Humans; Mammals; Primates; Vertebrates
REGISTRY NUMBER: **27750-10-3** ((-)-HYDROXYCITRIC ACID)
27750-10-3 (LEVO-HYDROXYCITRIC ACID)
9012-83-3 (CITRATE LYASE)
72-89-9 (ACETYL COENZYME A)
72-89-9 (ACETYL COA)
300-85-6 (BETA-HYDROXYBUTYRATE)
113-21-3 (LACTATE)
50-99-7Q (GLUCOSE)
58367-01-4Q (GLUCOSE)
9004-10-8 (**INSULIN**)
9007-92-5 (GLUCAGON)

L75 ANSWER 16 OF 22 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 2001:252645 BIOSIS
DOCUMENT NUMBER: PREV200100252645
TITLE: Nutritional supplement products containing chromium picolinate and hydroxycitric acid lead to weight loss in randomized controlled study.
AUTHOR(S): Greenberg, Danielle (1); Harris, Rosemarie (1); Komorowski, James R. (1)
CORPORATE SOURCE: (1) AMBI Inc., 4 Manhattanville Road, Purchase, NY, 10577 USA
SOURCE: FASEB Journal, (March 7, 2001) Vol. 15, No. 4, pp. A75. print.
Meeting Info.: Annual Meeting of the Federation of American Societies for Experimental Biology on Experimental Biology 2001 Orlando, Florida, USA March 31-April 04, 2001
ISSN: 0892-6638.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English
ABSTRACT:
Chromium picolinate (CrPic) and hydroxycitric acid (HCA) have both been reported to have weight-loss benefits. We examined the effectiveness of a weight-loss program using nutritional snacks and capsules containing both CrPic and HCA. The USDA Food Guide Pyramid program was used as a control. Subjects (BMI 27 - 40 kg/m2) were assigned to either a treatment group (n=40) that received dietary supplements in the form of bars, snacks or capsules containing Cr (200 - 400 mcg/day) and HCA (1000 - 2000 mg/day) along with essential vitamins and minerals, or to a control group (n=17) receiving no dietary supplement, for 12 weeks. Both groups followed a dietary program using the USDA Food Guide Pyramid guidelines (1200-1600 kcal/day). Both groups received instructions on following these guidelines, had dietary recall monitored and were recommended exercise by a registered dietitian. Body weight, fasting ***insulin*** , cholesterol and blood glucose were measured. Weight consistently and steadily declined in the treatment group with a loss (mean 4.6, max 19 lbs) that was significantly greater than in the control group (mean 0.8, max 6 lbs; F (1.48)= 4.1, $p<0.05$). There were no significant changes in fasting **insulin**, cholesterol or blood glucose in either group. We conclude that CrPic and HCA in combination with other nutrients can be

effectively used in a moderate weight loss program under normal living conditions without severe caloric restriction. The use of the combination of these nutrient supplements for weight loss deserves further examination.

CONCEPT CODE: Food Technology - General; Methods *13502
General Biology - Symposia, Transactions and Proceedings of Conferences, Congresses, Review Annuals *00520
Metabolism - General Metabolism; Metabolic Pathways *13002
Nutrition - General Studies, Nutritional Status and Methods *13202
Food Technology - Synthetic, Supplemental and Enrichment Foods *13534

BIOSYSTEMATIC CODE: Hominidae 86215

INDEX TERMS: Major Concepts
Foods; Metabolism; Nutrition

INDEX TERMS: Chemicals & Biochemicals
chromium picolinate: dietary supplement; hydroxycitric acid: dietary supplement; nutritional capsules: dietary supplement

INDEX TERMS: Miscellaneous Descriptors
caloric restriction; nutritional bar: food supplement; nutritional snack: food supplement; nutritional supplements: food supplement; weight loss; Meeting Abstract

ORGANISM: Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGANISM: Organism Name
human (Hominidae)

ORGANISM: Organism Superterms
Animals; Chordates; Humans; Mammals; Primates; Vertebrates

REGISTRY NUMBER: **6205-14-7Q** (HYDROXYCITRIC ACID)
27750-10-3Q (HYDROXYCITRIC ACID)

L75 ANSWER 17 OF 22 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 2000400228 EMBASE

TITLE: A randomized, double-blind, placebo-controlled trial of a new weight-reducing agent of natural origin.

AUTHOR: Thom E.

CORPORATE SOURCE: Dr. E. Thom, Parexel Medstat AS, PO Box 210, N-2001 Lillestrom, Norway. erling.thom@parexel.com

SOURCE: Journal of International Medical Research, (2000) 28/5 (229-233).
Refs: 13
ISSN: 0300-0605 CODEN: JIMRBV

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 006 Internal Medicine
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles
039 Pharmacy

LANGUAGE: English

SUMMARY LANGUAGE: English

ABSTRACT:

The efficacy and tolerability of a new weight-reduction agent, based on natural ingredients, was investigated in this randomized, placebo-controlled, double-blind study. The product reduces the absorption of different types of sugar from the gastrointestinal tract. Forty obese volunteers were included in the 12-week study. Body weight, body composition and blood pressure were recorded at baseline and every month during the study. The results show a significant difference in weight reduction in favour of the active group (3.5 kg versus 1.2 kg). Body composition measurements showed that > 85% of the reduction in the active group is fat loss. The tolerability was similar and good in both groups. This product shows promising results and should be studied

more extensively at different dose levels.

CONTROLLED TERM:

Medical Descriptors:
*weight reduction
*obesity: DT, drug therapy
drug efficacy
drug effect
glucose absorption
stomach absorption
intestine absorption
body weight
body composition
blood pressure
body fat
drug tolerability
drug mixture
drug formulation
side effect: SI, side effect
human
male
female
clinical article
clinical trial
randomized controlled trial
double blind procedure
controlled study
adult
article
Drug Descriptors:
*natural product: AE, adverse drug reaction
*natural product: CT, clinical trial
*natural product: DT, drug therapy
*natural product: PR, pharmaceutics
*natural product: PD, pharmacology
*natural product: PO, oral drug administration
*suco bloc: AE, adverse drug reaction
*suco bloc: CT, clinical trial
*suco bloc: DT, drug therapy
*suco bloc: PR, pharmaceutics
*suco bloc: PD, pharmacology
*suco bloc: PO, oral drug administration
*antiobesity agent: AE, adverse drug reaction
*antiobesity agent: CT, clinical trial
*antiobesity agent: DT, drug therapy
*antiobesity agent: PR, pharmaceutics
*antiobesity agent: PD, pharmacology
*antiobesity agent: PO, oral drug administration
phaseolus vulgaris extract: AE, adverse drug reaction
phaseolus vulgaris extract: CT, clinical trial
phaseolus vulgaris extract: CB, drug combination
phaseolus vulgaris extract: DT, drug therapy
phaseolus vulgaris extract: PD, pharmacology
phaseolus vulgaris extract: PO, oral drug administration
Garcinia cambogia extract: AE, adverse drug reaction
Garcinia cambogia extract: CT, clinical trial
Garcinia cambogia extract: CB, drug combination
Garcinia cambogia extract: DT, drug therapy
Garcinia cambogia extract: PD, pharmacology
Garcinia cambogia extract: PO, oral drug administration
inulin: AE, adverse drug reaction
inulin: CT, clinical trial
inulin: CB, drug combination
inulin: DT, drug therapy

inulin: PD, pharmacology
inulin: PO, oral drug administration
hydroxycitric acid: AE, adverse drug reaction
hydroxycitric acid: CT, clinical trial
hydroxycitric acid: CB, drug combination
hydroxycitric acid: DT, drug therapy
hydroxycitric acid: PD, pharmacology
hydroxycitric acid: PO, oral drug administration
amylase inhibitor: PD, pharmacology
glycoprotein: AE, adverse drug reaction
glycoprotein: CT, clinical trial
glycoprotein: CB, drug combination
glycoprotein: DT, drug therapy
glycoprotein: PD, pharmacology
glycoprotein: PO, oral drug administration
placebo
sugar
fat
glucose
amylase: EC, endogenous compound
carbohydrate
unclassified drug
phaseolamin
raftiline

CAS REGISTRY NO.: (inulin) 9005-80-5; (hydroxycitric acid) **27750-10-3**, **6205-14-7**; (glucose) 50-99-7, 84778-64-3; (amylase) 9000-90-2, 9000-92-4, 9001-19-8

CHEMICAL NAME: (1) Suco bloc; (2) Phaseolamin; (3) Raftiline

COMPANY NAME: (1) Med Eq (Norway); (2) Leuven Bioproducts (Belgium); (3) Orafti (Belgium)

L75 ANSWER 18 OF 22 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 2000298826 EMBASE

TITLE: Current and potential drugs for treatment of obesity.

AUTHOR: Bray G.A.; Greenway F.L.

CORPORATE SOURCE: Dr. G.A. Bray, 6400 Perkins Road, Baton Rouge, LA 70808, United States

SOURCE: Endocrine Reviews, (1999) 20/6 (805-875).
Refs: 999
ISSN: 0163-769X CODEN: ERVIDP

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 003 Endocrinology
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles

LANGUAGE: English

CONTROLLED TERM: Medical Descriptors:
*obesity: DT, drug therapy
*obesity: TH, therapy
*drug mechanism
pulmonary hypertension: SI, side effect
hypertension: SI, side effect
gastrointestinal symptom: SI, side effect
serotonin syndrome: SI, side effect
sleep disorder: SI, side effect
anxiety neurosis: SI, side effect
behavior modification
weight reduction
food and drug administration
drug marketing
cardiotoxicity

satiety
energy expenditure
drug absorption
food intake
drug efficacy
human
nonhuman
rat
review
priority journal
Drug Descriptors:
*antiobesity agent: AE, adverse drug reaction
*antiobesity agent: DT, drug therapy
*amylase inhibitor
*androgen
*beta adrenergic receptor stimulating agent: PD, pharmacology
*alpha adrenergic receptor stimulating agent: PD, pharmacology
*anorexigenic agent: AE, adverse drug reaction
*anorexigenic agent: PK, pharmacokinetics
*anorexigenic agent: PD, pharmacology
fenfluramine: AE, adverse drug reaction
fenfluramine: CB, drug combination
fenfluramine: DT, drug therapy
fenfluramine: PD, pharmacology
phentermine: AE, adverse drug reaction
phentermine: CB, drug combination
phentermine: DT, drug therapy
phentermine: PD, pharmacology
dexfenfluramine: AE, adverse drug reaction
sibutramine
mazindol
tetrahydrolipstatin: AE, adverse drug reaction
tetrahydrolipstatin: DO, drug dose
tetrahydrolipstatin: PD, pharmacology
sucrose polyester: PD, pharmacology
metformin: PD, pharmacology
pyruvic acid: PD, pharmacology
hydroxycitric acid: PD, pharmacology
chorionic gonadotropin: PD, pharmacology
prasterone
testosterone
thyroid hormone
ephedrine
caffeine
terbutaline: PD, pharmacology
4 [2 [[2 (3 chlorophenyl) 2 hydroxyethyl]amino]propyl]phenoxyacetic acid methyl ester: PD, pharmacology
4 [2 [(2 hydroxy 2 phenylethyl)amino]propyl]benzoic acid methyl ester: PD, pharmacology
4 [2 [(2 hydroxy 3 phenoxypropyl)amino]ethoxy] n (2 methoxyethyl)phenoxyacetamide: PD, pharmacology
4 [3 [bis(beta hydroxyphenethyl)amino]butyl]benzamide: PD, pharmacology
5 [2 [[2 (3 chlorophenyl) 2 hydroxyethyl]amino]propyl] 1,3 benzodioxole 2,2 dicarboxylic acid: PD, pharmacology
intermedin
fluoxetine: PD, pharmacology
sertraline: PD, pharmacology
amfepramone
human growth hormone: PD, pharmacology
glucose derivative

monoamine
unindexed drug
4 [2 [(2 hydroxy 2 phenylethyl)amino]propyl]benzoic acid methyl ester hydrogen maleate

CAS REGISTRY NO.: (fenfluramine) 404-82-0, 458-24-2; (phentermine) 1197-21-3, 122-09-8; (dexfenfluramine) 3239-44-9, 3239-45-0; (sibutramine) 106650-56-0; (mazindol) 22232-71-9; (tetrahydrolipstatin) 96829-58-2; (metformin) 1115-70-4, 657-24-9; (pyruvic acid) 127-17-3, 19071-34-2, 57-60-3; (hydroxycitric acid) **27750-10-3**, **6205-14-7**; (chorionic gonadotropin) 9002-61-3; (prasterone) 53-43-0; (testosterone) 58-22-0; (ephedrine) 299-42-3, 50-98-6; (caffeine) 30388-07-9, 58-08-2; (terbutaline) 23031-25-6; (4 [2 [[2 (3 chlorophenyl) 2 hydroxyethyl]amino]propyl]phenoxyacetic acid methyl ester) 91097-81-3; (4 [2 [(2 hydroxy 2 phenylethyl)amino]propyl]benzoic acid methyl ester) 77955-41-0; (4 [2 [(2 hydroxy 3 phenoxypropyl)amino]ethoxy] n (2 methoxyethyl)phenoxyacetamide) 129689-30-1; (4 [3 [bis(beta hydroxyphenethyl)amino]butyl]benzamide) 90505-66-1; (5 [2 [[2 (3 chlorophenyl) 2 hydroxyethyl]amino]propyl] 1,3 benzodioxole 2,2 dicarboxylic acid) 138908-40-4; (intermedin) 9002-79-3, 9046-72-4; (fluoxetine) 54910-89-3, 56296-78-7, 59333-67-4; (sertraline) 79617-96-2; (amfepramone) 134-80-5, 90-84-6; (human growth hormone) 12629-01-5; (4 [2 [(2 hydroxy 2 phenylethyl)amino]propyl]benzoic acid methyl ester hydrogen maleate) 87857-42-9

CHEMICAL NAME: (1) Olean; Brl 35135; Brl 26830a; Ici d7114; Cl 316243; Ro 16 8714

COMPANY NAME: (1) Procter and Gamble (United States)

L75 ANSWER 19 OF 22 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 85245832 EMBASE

DOCUMENT NUMBER: 1985245832

TITLE: Effect of drugs, peptide hormones and lipogenic precursors on the relative incorporation of [3H]H2O and carbon into hepatic cholesterol.

AUTHOR: Bjornsson O.G.; Pullinger C.R.; Gibbons G.F.

CORPORATE SOURCE: Metabolic Research Laboratory, Nuffield Department of Clinical Medicine, Radcliffe Infirmary, Oxford OX2 6HE, United Kingdom

SOURCE: FEBS Letters, (1985) 187/2 (302-306).
CODEN: FEBLAL

COUNTRY: Netherlands

DOCUMENT TYPE: Journal

FILE SEGMENT: 037 Drug Literature Index
029 Clinical Biochemistry
048 Gastroenterology
030 Pharmacology
003 Endocrinology

LANGUAGE: English

ABSTRACT:

Measurement of the weight of desmosterol produced during its biosynthesis in the presence of tritiated water and triparanol has permitted a direct determination of the relative flux of caron and tritium (the J/C ratio) into sterol in hepatocytes. The H/C ratio increased with time of incubation irrespective of the nutritional state of the donor animals. This increase was more marked in hepatocytes from starved animals. Pyruvate and lactate increased, and glucagon decreased, the sterol H/C ratio. Addition of pyruvate to incubations containing glucagon resulted in a 32-67% increase in the H/C ratio depending upon nutritional status. Insulin had no effect whilst (-)-hydroxycitrate decreased the ratio by 25%.

CONTROLLED TERM: Medical Descriptors:
*alpha cyano 3 hydroxycinnamic acid
*cholesterol h 3
*cholesterol synthesis
*drug accumulation
*drug comparison
*drug identification
*drug interaction
*drug metabolism
*drug tissue level
*starvation
diet
liver cell
priority journal
drug analysis
nonhuman
rat
liver
animal experiment
animal cell
in vitro study
animal model
Drug Descriptors:
*alpha cyano 4 hydroxycinnamic acid
*carbon
*compactin
*desmosterol
***dexamethasone**
*glucagon
*hydroxycitric acid
*insulin
*pyruvic acid
*triparanol
*tritium oxide
radioisotope

CAS REGISTRY NO.: (alpha cyano 4 hydroxycinnamic acid) 28166-41-8; (carbon) 7440-44-0; (compactin) 73573-88-3; (desmosterol) 313-04-2; (dexamethasone) 50-02-2; (glucagon) 11140-85-5, 62340-29-8, 9007-92-5; (hydroxycitric acid) **27750-10-3, 6205-14-7**; (insulin) 9004-10-8; (pyruvic acid) 127-17-3, 19071-34-2, 57-60-3; (triparanol) 78-41-1; (tritium oxide) 14940-65-9

COMPANY NAME: Sigma

L75 ANSWER 20 OF 22 EMBASE COPYRIGHT 2002 ELSEVIER SCI. B.V.
ACCESSION NUMBER: 83160847 EMBASE
DOCUMENT NUMBER: 1983160847
TITLE: The role of substrate supply in the regulation of cholesterol biosynthesis in rat hepatocytes.
AUTHOR: Pullinger C.R.; Gibbons G.F.
CORPORATE SOURCE: Med. Res. Counc. Lipid Metab. Unit, Hammersmith Hosp., London W12 0HS, United Kingdom
SOURCE: Biochemical Journal, (1983) 210/3 (625-632).
CODEN: BIJOAK
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
ABSTRACT:
Compactin, (-)-hydroxycitrate and dexamethasone gave rise to a decrease in the rate of cholesterol production in hepatocytes from fed rats by interfering with the flow of substrate into the sterol biosynthetic pathway. The cells responded

to the deficit of biosynthetic sterol by increasing the activity of hydroxymethylglutaryl-CoA reductase (HMG-CoA reductase). Compactin and (-)-hydroxycitrate gave similar results in hepatocytes from rats starved for 24 h but in this case dexamethasone had no significant effect. Exogenous oleate interferes with the production of carbohydrate-derived acetyl-CoA and also gives rise initially to opposing effects on the rate of sterol synthesis and HMG-CoA reductase activity. Over a longer period, however, oleate itself was capable of replacing carbohydrate as the major source of carbon for sterol synthesis. The increase in HMG-CoA reductase activity observed when liver cells were incubated in the presence of compactin, (-)-hydroxycitrate or oleate could be partially reversed by the simultaneous presence of glucagon. Under some physiological conditions, a deficiency of biosynthetic cholesterol or of a related precursor may lead to an increase in the activity of HMG-CoA reductase.

CONTROLLED TERM: Medical Descriptors:
liver cell
animal cell
nonhuman
rat
liver
Drug Descriptors:
*cholesterol
*compactin
***dexamethasone**
*hydroxycitric acid
glucagon
hydroxymethylglutaryl coenzyme a reductase
oleic acid

CAS REGISTRY NO.: (cholesterol) 57-88-5; (compactin) 73573-88-3; (dexamethasone) 50-02-2; (hydroxycitric acid) **27750-10-3, 6205-14-7**; (glucagon) 11140-85-5, 62340-29-8, 9007-92-5; (hydroxymethylglutaryl coenzyme a reductase) 37250-24-1; (oleic acid) 112-80-1, 115-06-0

=> fil reg
FILE 'REGISTRY' ENTERED AT 12:44:19 ON 02 OCT 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 1 OCT 2002 HIGHEST RN 457857-22-6
DICTIONARY FILE UPDATES: 1 OCT 2002 HIGHEST RN 457857-22-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> s 27750-10-3 or 6205-14-7

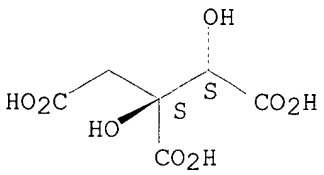
1 27750-10-3

(27750-10-3/RN)
1 6205-14-7
(6205-14-7/RN)
L76 2 27750-10-3 OR 6205-14-7

=> d ide l76 1-2; fil hom

L76 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2002 ACS
RN **27750-10-3** REGISTRY
CN D-erythro-Pentaric acid, 3-C-carboxy-2-deoxy- (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN (-)-2-Hydroxycitric acid
CN (-)-Hydroxycitric acid
CN Citric acid, 2-hydroxy-, (-)-
CN Garcinia acid
CN Hydroxycitric acid
FS STEREOSEARCH
DR 4373-35-7
MF C6 H8 O8
CI COM
LC STN Files: ADISNEWS, AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CIN, DDFU, DRUGU, EMBASE, HODOC*, IPA, NAPRALERT, NIOSHTIC, PROMT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

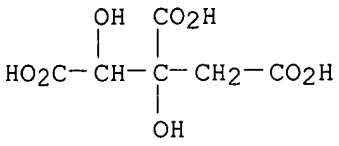
Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

121 REFERENCES IN FILE CA (1962 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
124 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L76 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2002 ACS
RN **6205-14-7** REGISTRY
CN Pentaric acid, 3-C-carboxy-2-deoxy- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,2,3-Propanetricarboxylic acid, 1,2-dihydroxy- (7CI, 8CI)
OTHER NAMES:
CN Citric acid, hydroxy-
CN Hydroxycitric acid
FS 3D CONCORD
MF C6 H8 O8
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CIN, CSCHEM, CSNB, EMBASE, MEDLINE, PROMT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

18 REFERENCES IN FILE CA (1962 TO DATE)
18 REFERENCES IN FILE CAPLUS (1962 TO DATE)
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

FILE 'HOME' ENTERED AT 12:44:31 ON 02 OCT 2002